claim 43: page 27, lines 15-18;

claim 44: page 27, lines 4-5;

claim 45: page 26, line 29 through page 27, line 3; and

claim 46: page 5, lines 18-19 and claim 31 as originally filed.

Applicants believe that the application is in condition for allowance and favorable action thereon is respectfully solicited.

Respectfully Submitted,

Mark A. Kassel, Reg. No. 38,200
Attorney for Applicants
Foley & Lardner
150 East Gilman Street
Post Office Box 1497
Madison, Wisconsin 53701-1497
(608) 258-4272

29. (Amended) A method of producing L-β-lysine, comprising [the steps of]:

(a) culturing a host cell comprising an expression vector that encodes lysine 2,3-aminomutase in the presence of L-lysine, wherein the cultured host cell expresses lysine 2,3-aminomutase, and

(b) isolating L-β-lysine from the cultured host cells.

30. (Amended) A method of producing L-β-lysine, comprising [the steps of]:

(a) incubating L-lysine in a solution containing purified lysine 2,3-aminomutase, said solution containing all cofactors required for lysine 2,3-aminomutase activity; and

(b) isolating L-β-lysine from the incubation solution.

31. (Amended) The method of claim 30, wherein the lysine 2,3-aminomutase has an amino acid sequence selected from the group consisting of (i) SEQ ID NO:4, (ii) SEQ ID NO:6, (iii) SEQ ID NO:8, (iv) SEQ ID NO:10, (v) SEQ ID NO:12, (vi) SEQ ID NO:14, [and] (vii) SEQ ID NO:16, (viii) SEQ ID NO:2 and [(viii)] (ix) a conservative amino acid variant of any of SEQ ID NOs:2, 4, 6, 8, 10, 12, 14, or 16.